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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/507,026

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Franca Lco

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10/24/2006

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EXAMINER

VALENTI, ANDREA M

ART UNIT

PAPER NUMBER

3643

DATE MAILED: 10/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/507,026

Applicant(s)

LEO, FRANCA

Examiner

Andrea M. Valenti

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 August 2006.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-13 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,419,283 to Leo in view of U.S. Patent No. 6,178,922 to Denesuk and U.S. Patent Pub. No. US 6,926,916 to Day et al.

Regarding Claims 1, 2, and 3, Leo teaches a chewable toy for animals, which can be produced by the moulding into a desired configuration of a mixture comprising: 100 parts by weight of a degradable polymeric composition comprising a starchy material (Leo abstract line 5) and a degradable ethylene copolymer.

Leo teaches the addition of edible lubricants, vitamins, proteins, mineral salts, flavouring, therapeutic substances, dental care products, products that enhance attractiveness of the toy (Leo Col. 2 line 46-50 and Col. 1 line 55-61), but is silent on explicitly teaching from 5 to 30 (or 10 to 20) parts by weight of isomalt, and from 0.5 to 5 (or 1 to 3) parts by weight of garlic or derivatives thereof. However, Denesuk teaches that it is old and notoriously well-known to incorporate as additives garlic and sugar to animal toys (Denesuk Col. 4 line 28-31 and Col. 15 line 19-21; claim 49, 50, 68). It would have been obvious to one of ordinary skill in the art to modify the teachings of Leo with the teachings of Denesuk at the time of the invention since the modification is

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merely the addition of attract and flavouring agents to provide a nutritive attractant and a natural anti-microbial agent as taught by Denesuk. It would have been obvious through routine tests and experimentation to derive a desire ratio of garlic and sugar agents to optimize the system.

Leo as modified by Denesuk teaches that sugar function both as a nutritive attractant and an anti-microbial agent, but is silent on explicitly teachings the sugar is isomalt. However, Day teaches that it is notoriously well-known that isomalt is known sweetening agent and a substitute for sugar (Day Col. 8 line 8-14 and Col. 1 line 38-39). It would have been obvious to one of ordinary skill in the art to further modify the teachings of Leo with the teachings of Day at the time of the invention since the modification is merely an engineering design choice involving the selection of a known alternate equivalent sugar ingredient performing the same intended function selected as a known material for intended use [*Leshin* 125 USPQ 416] to reduce choleric intake.

Regarding Claim 9, Leo as modified teaches the starchy material is selected from the group consisting of starch, hydrolyzed starch, starch dextrin and mixtures thereof (Leo Col. 1 line 28-29).

Regarding Claim 10, Leo as modified teaches in which the degradable ethylene copolymer is selected from the group consisting of polyethylene-acrylic acid, polyethylene-vinyl alcohol and mixtures thereof (Leo Col. 1 line 43).

Regarding Claim 11, Leo as modified teaches in which the ratio by weight between the ethylene copolymer and the starchy material is within the range between

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1:6 and 2: 1 and, preferably, within the range between 1:6 and 1:1 (Leo Col. 1 line 47-48).

Regarding Claim 12, Leo as modified teaches in which the polymeric composition also includes a plasticizer in a quantity of between 10% and 40% by weight, the plasticizer being selected from the group consisting of glycerol, sorbitol, sorbitan, manitol, maltitol, hydrogenated starch syrup, sucrose, maltose, fructose, and mixtures thereof (Leo Col. 1 line 52-54 and line 35).

Regarding Claim 13, Leo as modified teaches having the shape of a bone (Leo Fig. 1).

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,419,283 to Leo in view of U.S. Patent No. 6,178,922 to Denesuk and U.S. Patent Pub. No. US 6,926,916 to Day et al. as applied to claim 1 above, and further in view of U.S. Patent No. 5,391,390 to Leo.

Regarding Claim 4, Leo '283 as modified teaches the addition of garlic and that the garlic can be produced by various methods, but is silent on explicitly teaching which the derivative of garlic is a powder which can be produced as a result of the formation of a suspension of garlic bulbs in water in a ratio by weight within the range between 1:2 and 1:5 and subsequent lyophilization of the suspension with a preliminary stage of cooling to -50C for from 4 to 8 hours followed by a heating stage with a duration of between 12 and 24 hours, to a temperature no greater than 50OC. However, Patent '390 to Leo teaches a known method of producing garlic powder (Leo '390 claim 1). It

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would have been obvious to one of ordinary skill in the art to further modify the teachings of Leo '283 with the teachings of Leo '390 at the time of the invention since the modification is merely the an engineering design choice involving the selection of known garlic production method selected to prevent the offensive day-after effect as taught by Leo '390.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,419,283 to Leo in view of U.S. Patent No. 6,178,922 to Denesuk and U.S. Patent Pub. No. US 6,926,916 to Day et al. as applied to claim 1 above, and further in view of U.S. Patent No. 5,789,012 to Slimak.

Regarding Claim 5, Leo as modified teaches the addition of edible lubricants, vitamins, proteins, mineral salts, flavouring, therapeutic substances, **dental care** products, products that enhance attractiveness of the toy (Leo Col. 2 line 46-50 and Col. 1 line 55-61), but is silent on explicitly teaching in which the mixture also comprises from 1 to 20, and preferably from 5 to 10, parts by weight of chestnut flour per 100 parts by weight of degradable polymeric composition. However, Slimak teaches a chestnut flour as an ingredient in a variety of food products (Slimak abstract). It would have been obvious to one of ordinary skill in the art to further modify the teachings of Leo with the teachings of Slimak at the time of the invention since the modification is merely the addition of a flavouring agent to enhance an animals attention to the toy. It would have been obvious to one of ordinary skill through routine tests and experimentation to derive the desired ratio of proportion of agents to optimize the system.

Claims 5, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,419,283 to Leo in view of U.S. Patent No. 6,178,922 to Denesuk and U.S. Patent Pub. No. US 6,926,916 to Day et al as applied to claim 1 above, and further in view of U.S. Patent No. 6,586,027 to Axelrod.

Regarding Claims 6 and 7, Leo as modified teaches edible lubricants, vitamins, proteins, mineral salts, flavouring, therapeutic substances, dental care products, products that enhance attractiveness of the toy (Leo Col. 2 line 46-50 and Col. 1 line 55-61), but is silent on explicitly teaching in which the mixture also comprises from 5 to 30, and preferably from 15 to 20, parts by weight of ground raw animal hide per 100 parts by weight of degradable polymeric composition; in which the mixture also comprises from 0.01 to 1 part by weight of hide aroma per 100 parts by weight of degradable polymeric composition. However, Axelrod teaches the combination of starch and polymers and rawhide in combination for forming a pet chew toy (Axelrod abstract; Col. 2 line 26-28). It would have been obvious to one of ordinary skill in the art to further modify the teachings of Leo with the teachings of Axelrod at the time of the invention since the modification is merely the addition of a flavouring agent to attract a pet's interest. It would have been obvious to one of ordinary skill through routine tests and experimentation to derive the desired ratio of proportion of agents to optimize the system.

Regarding Claim 5, Leo as modified teaches that chestnut is a known herbal addition to a pet chew toy (Leo Col. 3 line 67).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,419,283 to Leo in view of U.S. Patent No. 6,178,922 to Denesuk and U.S. Patent Pub. No. US 6,926,916 to Day et al as applied to claim 1 above, and further in view of U.S. Patent No. 5,618,518 to Stookey.

Regarding Claim 8, Leo as modified teaches the addition of edible lubricants, vitamins, proteins, mineral salts, flavouring, therapeutic substances, **dental care** products, products that enhance attractiveness of the toy (Leo Col. 2 line 46-50 and Col. 1 line 55-61), but is silent on explicitly teaching the mixture also comprises from 0.5 to 3, and preferably from 1 to 2, parts by weight of sodium hexametaphosphate per 100 parts by weight of degradable polymeric composition. However, Stookey teaches an animal chew toy with a dental additive of sodium hexametaphosphate (Stookey Abstract). It would have been obvious to one of ordinary skill in the art to further modify the teachings of Leo with the teachings of Stookey at the time of the invention to prevent calculus as taught by Stookey. It would have been obvious to one of ordinary skill through routine tests and experimentation to derive the desired ratio of proportion of agents to optimize the system.

### ***Response to Arguments***

Applicant's arguments filed 16 August 2006 have been fully considered but they are not persuasive.

Examiner maintains that it would have been obvious to one of ordinary skill in the art to modify the teachings of Leo in view of Denesuk and Day. Leo teaches a molded



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chewable pet toy comprising a starchy material and degradable ethylene copolymer (Leo abstract line 5). Leo teaches the addition of a sugar as a plasticizer. For example, Leo teaches the addition of sucrose, maltose, or fructose (Leo Col.1 line 52-54). Furthermore, Leo teaches the addition of flavouring substances (Leo Col. 2 line 46). Examiner maintains that garlic is a known pet food/toy flavouring and that it would have been obvious to one of ordinary skill in the art to select the garlic flavouring of Denesuk (Denesuk Col. 15 line 21). One of ordinary skill in the art would be motivated to select garlic as an additive based on the general knowledge in the art that garlic is also a known anti-microbial agent for mastication objects. Leo teaches the addition of sugar, but is silent on explicitly identifying the sugar as isomalt. The Day reference was cited only as a teaching reference that is general knowledge of one of ordinary skill in the art that isomalt is a sugar substitute. One of ordinary skill in the art would be motivated to modify the teachings of Leo with isomalt for its generally known advantages of being better for the teeth by preventing tooth decay; cuts down on calories; works like a dietary fiber; is very low in glycemic, etc.

In response to applicant's argument that U.S. Patent No. 6,926,916 to Day is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, it is in the field of applicant's endeavor i.e. mastication/food composition.

In response to applicant's argument that the examiner has combined an excessive number of references, reliance on a large number of references in a rejection does not, without more, weigh against the obviousness of the claimed invention. See *In re Gorman*, 933 F.2d 982, 18 USPQ2d 1885 (Fed. Cir. 1991).

Applicant's specification has not explicitly linked the results of suppressing salmonella to the ration of constituents, but could merely be the result of the combination of the constituents. Furthermore, it is generally well-known in the art that isomalt has a stable molecular structure that most microorganisms in the mouth are not able to use as an energy source. It could merely be the presence of isomalt the produces the effect of suppressing salmonella. The examiner maintains that it would have been obvious to one of ordinary skill in the art to modify the teachings of Leo through routine tests and experimentation to derive the desired ratios to optimize the product. Examiner maintains that applicant has not patentably distinguished over the teachings of the cited prior art of record.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any


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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrea M. Valenti whose telephone number is 571-272-6895. The examiner can normally be reached on 7:00am-5:30pm M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 571-272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Andrea M. Valenti  
Primary Examiner  
Art Unit 3643

17 October 2006